METHOD, SYSTEM, AND COMPUTER PROGRAM PRODUCT COMBINING GESTURAL INPUT FROM MULTIPLE TOUCH SCREENS INTO ONE GESTURAL INPUT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims the benefit of U.S. Provisional Application No. 61/252,075, filed Oct. 15, 2009, and entitled "MULTI-PANEL ELECTRONIC DEVICE," the disclosure of which is expressly incorporated herein by reference in its entirety.

TECHNICAL FIELD

[0002] The present disclosure is generally related to a multi-touch screen electronic device and, more specifically, to systems, methods, and computer program products that recognize touch screen inputs from multiple touch screens.

BACKGROUND

[0003] Advances in technology have resulted in smaller and more powerful computing devices. For example, there currently exist a variety of portable personal computing devices, including wireless computing devices, such as portable wireless telephones, personal digital assistants (PDAs), and paging devices that are small, lightweight, and easily carried by users. More specifically, portable wireless telephones, such as cellular telephones and internet protocol (IP) telephones, can communicate voice and data packets over wireless networks. Further, many such portable wireless telephones include other types of devices that are incorporated therein. For example, a portable wireless telephone can also include a digital still camera, a digital video camera, a digital recorder, and an audio file player. Also, such wireless telephones can process executable instructions, including software applications, such as a web browser application, that can be used to access the Internet. As such, these portable wireless telephones can include significant computing capabilities.

[0004] Although such portable devices may support software applications, the usefulness of such portable devices is limited by a size of a display screen of the device. Generally, smaller display screens enable devices to have smaller form factors for easier portability and convenience. However, smaller display screens limit an amount of content that can be displayed to a user and may therefore reduce a richness of the user's interactions with the portable device.

BRIEF SUMMARY

[0005] According to one embodiment, a method for use by an electronic device that includes multiple touch screens is disclosed. The method includes detecting a first touch screen gesture at a first display surface of the electronic device, detecting a second touch screen gesture at a second display surface of the electronic device, and discerning that the first touch screen gesture and the second touch screen gesture are representative of a single command affecting a display on the first and second display surfaces.

[0006] According to another embodiment, an apparatus is disclosed. The apparatus includes a first display surface comprising a first touch-sensitive input mechanism configured to detect a first touch screen gesture at the first display surface and a second display surface comprising a second touch-sensitive input mechanism configured to detect a second touch screen gesture at the second display surface. The apparatus also includes a device controller in communication with the first display surface and with the second display surface. The device controller combining the first touch screen gesture and the second touch screen gesture into a single command affecting a display at the first and second display surfaces.

[0007] According to one embodiment, a computer program product having a computer readable medium tangibly storing computer program logic is disclosed. The computer program product includes code to recognize a first touch screen gesture at a first display surface of an electronic device, code to recognize a second touch screen gesture at a second display surface of the electronic device; and code to discern that the first touch screen gesture and the second touch screen gesture are representative of a single command affecting at least one visual item displayed on the first and second display surfaces.

[0008] According to yet another embodiment, an electronic device is disclosed. The electronic device includes a first input means for detecting a first touch screen gesture at a first display surface of the electronic device and a second input means for detecting a second touch screen gesture at a second display surface of the electronic device. The electronic device also includes means in communication with the first input means and the second input means for combining the first touch screen gesture and the second touch screen gesture into a single command affecting at least one displayed item on the first and second display surfaces.

[0009] The foregoing has outlined rather broadly the features and technical advantages of the present disclosure in order that the detailed description that follows may be better understood. Additional features and advantages will be described hereinafter which form the subject of the claims of the disclosure. It should be appreciated by those skilled in the art that the conception and specific embodiments disclosed may be readily utilized as a basis for modifying or designing other structures for carrying out the same purposes of the present disclosure. It should also be realized by those skilled in the art that such equivalent constructions do not depart from the technology of the disclosure as set forth in the appended claims. The novel features which are believed to be characteristic of the disclosure, both as to its organization and method of operation, together with further objects and advantages will be better understood from the following description when considered in connection with the accompanying figures. It is to be expressly understood, however, that each of the figures is provided for the purpose of illustration and description only and is not intended as a definition of the limits of the present disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] For a more complete understanding of the present disclosure, reference is now made to the following description taken in conjunction with the accompanying drawings.

[0011] FIG. **1** is an illustration of a first embodiment of an electronic device.

[0012] FIG. **2** depicts the example electronic device of FIG. **1** in a fully extended configuration.

[0013] FIG. **3** is a block diagram of processing blocks included in the example electronic device of FIG. **1**.

[0014] FIG. **4** is an exemplary state diagram of the combined gesture recognition engine of FIG. **3**, adapted according to one embodiment.